ProArt
Power Up Your Imagination

CASE STUDY

DNEG

KEY INFORMATION
CUSTOMER - DNEG
LOCATION - Montreal, Canada

AI-DRIVEN CAPABILITIES IN VISUAL EFFECTS

Martine Bertrand
Senior Researcher in AI at DNEG

Founded in 1998, DNEG is one of the world's premier visual effects and animation studios for feature films and television. DNEG has expanded over the years into a global force with multiple facilities across various continents and has worked on some of the most high-profile projects going, including 'Dune: Part Two', 'Avatar', and the recent 'The Last of Us'. Its outstanding work has earned numerous accolades, including Academy Awards, BAFTA Awards, and Visual Effects Society Awards, receiving its reputation for delivering the best in visual effects.

The company has embraced the integration of artificial intelligence (AI) into its VFX workflows, improving efficiency and creativity. By leveraging AI, DNEG can automate complex tasks, analyze vast amounts of data, and generate realistic effects to create new possibilities in the cinematic landscape. DNEG's AI-driven VFX solutions have helped to make movie production more efficient and cost-effective, which has enabled the company to remain at the forefront of the industry, pushing the boundaries of what is possible in visual effects.

THE CHALLENGE

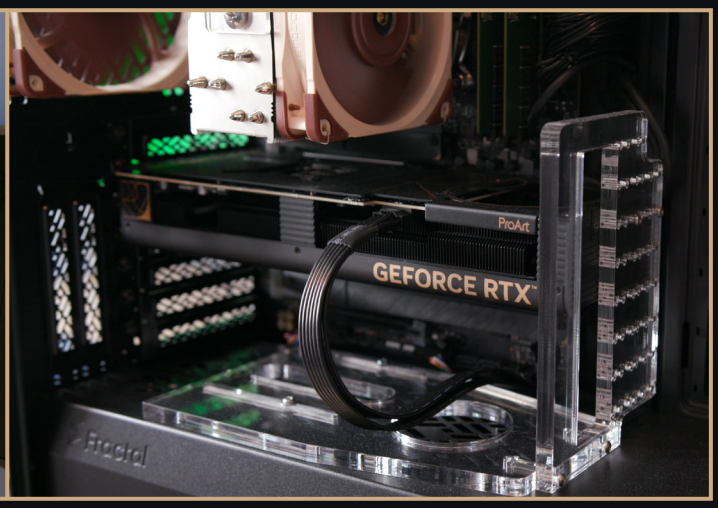
DNEG's employees can access virtual machines across the globe by leveraging thousands of ASUS Mini PCs. Working from home, however, means every employee from DNEG requires access to high-performance hardware to run and display projects seamlessly, especially those that leverage machine learning. They need equipment that can handle large volumes of processing power. To achieve this, the company needs to invest in the latest technologies, such as high-performance GPUs and CPUs.

"Machine learning requires having access to very specialized pieces of equipment that you would not be able to necessarily have in your home. Having access to those via virtual machines from anywhere in the world is a very important thing for us," says Martine Bertrand, Senior Researcher in AI at DNEG.

THE SOLUTION

Empowering Machine Learning Pipelines

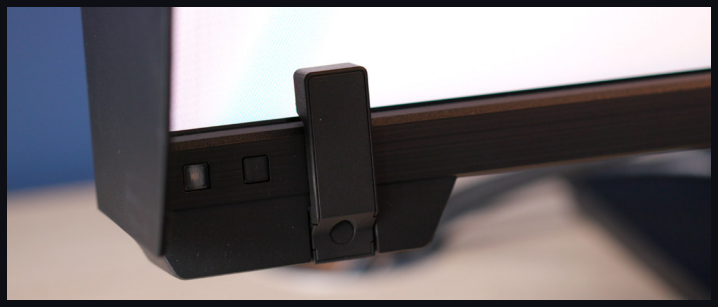
DNEG uses the Puget Systems Workstation powered by ASUS for its machine learning pipelines. These workstations, featuring ProArt Z790 motherboard, a powerful Intel core i9 CPUs and robust ProArt GeForce RTX™ 4080 SUPER graphics cards, enable distributed teams to handle training and pre-processing tasks efficiently. Bertrand emphasizes the importance of these ProArt components in running pre-trained models and producing high-resolution images.



"The graphics card is the heart of it all. Because we're playing around with pre-trained models, they can run fantastically on 16GB of VRAM, and you can produce high-resolution images on a graphics card like this. The workstation in its entirety is a very interesting machine for doing AI work," she concludes.

Color-accurate AI workflows

Color accuracy and brightness are very important in DNEG's AI workflows. To help AI researchers preserving and ensuring the quality and consistency of the images they work with, DNEG uses ASUS ProArt Display PA32UCXR monitor. This monitor offers a high dynamic range with peak brightness up to 1,600nits, true 10-bit, and 4K resolution, vital for maintaining color representation and detail in the final shot. The auto-calibration feature ensures consistency across the global workforce, facilitating effective communication and collaboration of the workflows, something that is especially important given the large-scale projects that DNEG works on.



THE OUTCOME

Working with ASUS ProArt, DNEG not only meets the high demands of machine learning and AI workflows but also ensures that its remote workforce remains productive. This strategic integration supports DNEG's commitment to excellence and its position at the forefront of the visual effects industry.

"I've been playing around with ASUS material for years. They're amazing pieces of hardware. This is something that will need more of as time goes by, so I'm really excited to see where this goes," concludes Martine Bertrand.

PRODUCT INSTALLED

ProArt Display PA32UCXR

32" UHD, 97% DCI-P3, 99% Adobe RGB, Multiple HDR formats, True 10-bit, Built-in colorimeter

Built for AI-driven workflows

Puget Systems Workstation

ProArt Z790-Creator Wifi motherboard, ProArt GeForce RTX™ 4080 SUPER

Learn more about Powered by ASUS Custom PC

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